CLAIMS

What is claimed is:

1. A common scalable interface for integrating platform subsystems with a communication subsystem using a full Link 16 message set, the interface comprising:

an Applications Programming Interface (API) database for defining an interface configuration of each platform subsystem from said platform subsystems

a User Modifiable Instructions (UMI) database for defining instructions for implementing the full Link 16 message set for the each platform subsystem;

application software for automatically configuring itself for the interface configuration of the each platform subsystem; and

a means for exchanging the full Link 16 messages to and from the communication subsystem and the each platform subsystem.

2. The interface of claim 1 further comprising a Message Parameter Database used by said application software to store Link 16 message data and parameters.

3. The interface of claim 1 wherein said application software comprises processing rules to send and receive Link 16 message data to and from the each platform subsystem in accordance with the interface configuration defined in the API database.

4. The interface of claim 3 wherein said application software comprises a special message functions apparatus.

5. The interface of claim 4 wherein said special message functions apparatus comprises an apparatus for correlating similar Link 16 message data from disparate sources, establishing and updating target track files, formatting of the Link 16 message data into situational awareness display formats, responding to automatic event triggers for message receive and transmit and mission recording and playback.

6. The interface of claim 4 wherein said application software comprises processing rules to apply said special message functions apparatus to the Link 16 message data in accordance with the instructions in the UMI database.

7. The interface of claim 1 wherein said application software comprises processing rules for management of a Link 16 communication network.

8. The interface of claim 1 wherein said application software comprises processing rules for at least one unique host platform requirement.

9. The interface of claim 8 wherein said application software comprises a special platform functions apparatus.

10. The interface of claim 9 wherein said special platform functions apparatus comprises an apparatus for formatting of the Link 15 message data into predefined Link 16 display formats, sending the Link 16 display formats to a display subsystem, and responding to data collection instructions in the UMI database to exchange data with mission applications in the each platform subsystem.

11. A common scalable method for interfacing platform subsystems with a communication subsystem using a full link 16 message set, the method comprising the steps of:

a) defining a configuration of each platform subsystem from the platform subsystems with a first database;

b) defining instructions for implementing the full Link 16 message set with a second database;

c) automatically configuring application software for the each platform subsystem; and

d) exchanging the Link 16 message data to and from the communication subsystem and the each platform subsystem.

12. The method of claim 11 further comprising the step of reconfiguring the application software for a next platform subsystem.

13. The method of claim 11 further comprising the step of storing the Link 16 message data and parameters in a Message Parameter Database for use by the application software.

14. The method of claim 11 configuring the Link 16 message data to be sent and received using processing rules from the first database.

15. The method of claim 14 where in the step of configuring comprises providing special messaging functions.

16. The method of claim 15 wherein the step of providing special messaging functions comprises the substeps of:

a) correlating similar Link 16 message data from disparate sources;

b) establishing and updating target track files;

c) formatting of the Link 16 message data into situational display formats; and

d) responding to automatic event triggers for message transmission and receipt and mission recording and playback.

17. The method of claim 15 wherein the step of providing special messaging functions comprises applying the special messaging functions using processing rules from the application software to the Link 16 message data in accordance with the instructions in the second database.

18. The method of claim 11 wherein the step of automatically configuring application software comprises providing processing rules for management of a Link 16 communications network.

19. The method of claim 11 wherein the step of automatically configuring application software comprises providing processing rules for at least one unique host platform requirement.

20. The method of claim 19 wherein the step of proving processing rules comprises:

a) formatting of data into predefined Link 16 display formats;

b) sending the Link 16 display formats to a display subsystem; and

c) responding to data collection instructions in the second database for exchanging the Link 16 message data with at least one mission application in the each platform subsystem.